ABSTRACT OF THE DISCLOSURE

In a vehicle speed control system, each node existing ahead of a vehicle is detected, and a stable running speed at which the vehicle runs stably when the vehicle passes over each node, and a deceleration needed to accelerate/decelerate the vehicle so that the vehicle speed becomes the stable running speed at each node by the time when the vehicle arrives at the node are successively calculated. On the basis of the deceleration at each node, a point at which the maximum deceleration value is achieved is selected, and the vehicle is subjected to deceleration control so that the vehicle speed becomes the stable running speed at the point. When a point at which the curve degree is maximum is different from a point at which the deceleration value is maximum and also the point is located ahead of the vehicle, further necessary deceleration control is carried out.